

CLAIMS

1. A sperm regulation method which comprises providing a sperm sample containing a extracellular matrix protein so that the sperm is in a low motility non-capacitated state, and adding angiotensin II or a related peptide to stimulate motility and capacitate the sperm.
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2. A method according to claim 1 in which the sperm sample containing a extracellular matrix protein has been prepared by adding an extracellular matrix protein to a sperm sample to bring the sperm into a non-capacitated state.
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3. A method according to claim 1 in which the sperm sample containing an extracellular matrix protein is a sample which naturally contains an extracellular matrix protein.
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4. A method according to claim 1, 2 or 3 in which the sperm sample containing an extracellular matrix protein has been stored prior to adding angiotensin II or a related peptide to capacitate the sperm.
- 20 5. A method according to claim 4 in which the sperm sample containing an extracellular matrix protein has been frozen or chilled for storage and is thawed prior to adding angiotensin II or a related peptide to capacitate the sperm.
6. A method according to claim 4 in which the extracellular matrix protein is added to a sperm sample before being frozen or chilled for storage and is thawed prior to adding angiotensin II or a related peptide to capacitate the sperm.
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7. A method according to any one of claims 1 to 6 which is carried out *in vitro*.
- 30 8. A method according to any one of claims 1 to 6 which is carried out at least partly *in vivo*.

9. A method according to any one of claims 1 to 8 in which the extracellular matrix protein is selected from fibronectin, vitronectin and laminin.
10. A method according to any one of claims 1 to 9 in which the capacitating agent is angiotensin II or angiotensin II amide or a peptide containing the tripeptide RGD.
11. Use of one or more extracellular matrix proteins as an agent to conserve sperm in a low motility non-capacitated state.
12. Use according to claim 11 in which the extracellular matrix protein-containing sperm is stored in liquid form.
13. Use according to claim 11 in which the extracellular matrix protein-containing sperm is stored in frozen form.
14. Use of angiotensin II or related peptides as an agent for stimulating motility and capacitation of sperm samples that have been conserved in a low motility non-capacitated state by the presence of an extracellular matrix protein.
15. Use according to claim 14 in which the sperm sample that has been conserved in a non-capacitated state is obtained by thawing extracellular matrix protein-containing frozen sperm.
16. Use according to claim 14 in which the sperm sample that has been conserved in a non-capacitated state is an extracellular matrix protein-containing sperm sample that has been stored in liquid form.
17. Use according to claim 14 in which the sperm sample that has been conserved in a non-capacitated state is a sample that naturally contains an extracellular matrix protein.

18. Use according to claim 14 in which the sperm sample that has been conserved in a non-capacitated state is fresh sperm in which capacitation has been suppressed until ready for use.
- 5 19. Use according to any one of claims 14 to 18 in which the extracellular matrix protein is selected from fibronectin, vitronectin and laminin.
20. Use according to any one of claims 14 to 19 in which the capacitating agent is angiotensin II or angiotensin II amide or an peptide containing the tripeptide RGD.
- 10 21. A reproduction cell medium comprising one or more extracellular matrix proteins as an agent to conserve sperm in a non-capacitated state.
22. A reproduction cell medium according to claim 21 in which the extracellular
15 matrix protein is selected from fibronectin, vitronectin and laminin.
23. A reproduction cell medium comprising angiotensin II or a related peptide as an agent for capacitation of sperm samples that have been conserved in a non-capacitated state.
- 20 24. A reproduction cell medium according to claim 23 in which the capacitating agent is angiotensin II or angiotensin II amide or a peptide containing the tripeptide RGD.
- 25 25. A sperm inhibition composition comprising one or more extracellular matrix proteins.
26. A sperm enhancement composition comprising angiotensin II or a related peptide.
- 30 27. A composition according to claim 25 or 26 in which the active substance is dispersed in a pessary base.